

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

REC'D	02 MAR 2005
WIPO	PCT

Applicant's or agent's file reference BP107730	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FI 03/00895	International filing date (day/month/year) 21.11.2003	Priority date (day/month/year) 22.11.2002
International Patent Classification (IPC) or both national classification and IPC A01C1/06		
Applicant KEMIRA GROWHOW OY et al.		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 2 sheets.</p>
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the opinion II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 19.04.2004	Date of completion of this report 28.02.2005
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Bunn, D Telephone No. +49 89 2399-2086



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/FI 03/00895

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-19 as published

Claims, Numbers

1-10 filed with telefax on 23.11.2004

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

Claims

1. Coated plant seed, characterised in that it comprises a plant seed and a coating composition comprising a mixture of a plant nutrient and a fixing agent, the composition being in the form of an emulsion or an emulsion suspension.

5 2. Coated seed as defined in claim 1, characterised in that the coating composition contains

a) 40-70% by weight of a plant nutrient containing a phosphate salt,

b) 0.5-15% by weight of oil

c) 0.1-15% by weight of W/O surface-active agent

10 d) 10-45% by weight of water,

e) 0-25% by weight of sugar and

f) 0-10% by weight of pH regulating agent.

3. Coated seed as defined in claim 1 or 2, characterised in that the coating composition contains

15 a) 50-60% by weight of a plant nutrient containing a phosphate salt,

b) 1-10% by weight of oil

c) 0.5-10% by weight of W/O surface-active agent

d) 15-40% by weight of water,

e) 0.5-25% by weight of sugar and

20 f) 0-10% by weight of pH regulating agent.

4. Coated seed as defined in any of claims 1 to 3, characterised in that the pH of the coating composition is in the range 4 to 7.

5. Coated seed as defined in any of claims 1 to 4, characterised in that the coating composition contains 10 to 20% by weight of sugar.

25 6. Coated seed as defined in any of claims 1 to 5, characterised in that the viscosity of the coating composition is not more than 10,000 mPas, preferably not more than 3,000 mPas, under the coating conditions in question.

7. Coated seed as defined in any of claims 1 to 6, characterised in that it contains 0.5-25% by weight of the coating composition relative to the weight of the seed.

8. Coated seed as defined in any of claims 1 to 7, characterised in that it contains 1-15% by weight of the coating composition relative to the weight of the seed.

5 9. Use of a water and oil containing coating composition in the form of an emulsion or an emulsion suspension, which coating composition comprises a mixture of a plant nutrient and a fixing agent, for coating a plant seed.

10. A method for coating seeds, characterised in that

- a) seeds to be coated are subjected in an equipment suitable for a seed treatment, and
- 10 b) a water and oil containing coating composition in the form of an emulsion or an emulsion suspension, which coating composition comprises a mixture of a plant nutrient and a fixing agent, is added to form a coating on the seed surface.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2-8
	No: Claims	1,9,10
Inventive step (IS)	Yes: Claims	
	No: Claims	1-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

V. Reasoned statement

1. Each of the originally-filed independent claims 1,9 & 10 specifies that the seed coating contains/comprises *water and oil*. These features, however, are absent from amended claim 1. As these two features are presented as *essential* in the disclosure of the invention (see description, p.5, para.5 & p.9, para.2), it follows that their deletion introduces subject-matter which extends beyond the content of the application as filed, contrary to Article 34(2)(b) PCT.

While the description (p.5, para.4) indicates that the fixing agent "is in the form of an emulsion of water and oil", this is nevertheless no basis for suppressing any mention of said water and oil components in the claims.

2. US-A-4 192 095 (D2: see, in particular, claim 1 and col.1, l.46 - col.2, l.5) discloses a coated plant seed comprising a plant seed and a coating composition comprising a mixture of a plant nutrient (i.e. urea¹) and a fixing agent (i.e. water and oil, as confirmed in the published application, p.5, para.4), the composition being in the form of an emulsion or an emulsion suspension. It follows that the subject matter of claim 1 fails to meet the requirements of novelty, Article 33(2) PCT.
3. For reasoning identical to that provided with respect to claim 1, the subject matter of claims 9 & 10 is also known from D2, and so likewise lacks novelty, Article 33(2) PCT.
4. Dependent claims 2-8 merely relate to the selection of particular parameter values from a limited range of possibilities, which values could be arrived at by routine trial and error or by the application of normal design procedures, without involving an inventive step. It follows that the subject matter of claims 2-8 fails to meet the requirements of Article 33(3) PCT.
5. While WO-A-0145489 (claim 6) discloses a plant seed and coating composition comprising a plant nutrient and fixing agent. However, there is no indication that said

¹That the urea is intended to serve as a weighting material is irrelevant - claim 1 merely specifies the presence of a plant nutrient.

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composition is in the form of an *emulsion or emulsion suspension*.
US-A-5 482 529 fails to mention either seeds or a seed coating.